

ABSTRACT OF THE DISCLOSURE

[0053] Described are on-die termination (ODT) systems and methods that facilitate high-speed communication between a driver die and a receiver die interconnected via one or more signal transmission lines. An ODT control system in accordance with one embodiment calibrates and maintains termination resistances and drive currents to produce optimal output swing voltages. Comparison circuitry employed to calibrate the reference resistance is also used to calibrate the drive current. Termination elements in some embodiments are divided into two adjustable resistive portions, both of which are designed to minimize capacitive loading. One portion is optimized to produce a relatively high range of adjustment, while the other is optimized for fine-tuning and glitch-free switching.